REMARKS

The Office Action mailed February 4, 2004 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Rejection(s) Under 35 U.S.C. § 112, First Paragraph

Claims 14 – 30 were rejected under 35 U.S.C. § 112, first paragraph, "for failing to be enabled by a specification which would enable one of ordinary skill in the art to make and use the invention. Claims 29 and 30 have been cancelled.

It is contended in the Office Action that a "low roughness" of about 1 um pv is not achievable by the claimed methods. European Patent Application no. 650803 is cited as authority in support of this position.

Applicants respectfully submit that a "low roughness" of about 1 um pv is not claimed. Rather, the claims merely state "optical quality," and this only in the preambles thereof. Reading the desired result of a roughness level of 1 um pv from the specification into the claims is unduly restrictive.

Further, it will be noted that the specification explains that the first, machining step, itself may comprise two substeps—namely, a blank-forming substep and a finishing substep. (p. 7, ll. 31 – 32; p. 12, ll. 5 – 11). In some cases, this two step process may be carried out by way of a single pass, for example using a dual-spindle machine, "the first [spindle] mounted with the blank-forming blade, and the second with the finishing blade." (p. 12, ll. 12 – 15). The specifications goes on to clarify, that "[t]he parameters of the method, which depend on the machine, the blade and the operating conditions are specifically determined for each type of

application." (p. 12, l. 32 – p. 13, l. 4) These parameters include blade speed, feederate, pass depth, blade type, material type, and blade cooling, to name a few. (p. 13, ll. 9 – 15). These approaches will in fact achieve "optical quality" finishes. In further support of this contention, applicants submit herewith an Affidavit by the inventors stating that the methods of the invention achieve "optical quality" finishes, and in fact, a "low roughness of 1 um pv, which, it should be noted, is actually equivalent to the roughness of an *unpolished* silicon substrate.

Rejection(s) Under 35 U.S.C. § 112, Second Paragraph

Claims 14-30 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claims 29 and 30 have been cancelled. Claims 14, 16, 27, 27-28 have been amended to overcome the 35 U.S.C. 112, Second Paragraph with the understanding that such removal is not directed to and does not affect the scope of the Claims.

Rejection(s) Under 35 U.S.C. § 103 Rejection

Claims 14 – 18, 20 and 27 - 30 were rejected under 35 U.S.C. § 103(a) as unpatentable over AAPA in view of Nelson et al. (U.S. pat. no. 4,895,428; hereinafter, "Nelson").

Nelson is directed to a method of making molds for retroreflective surfaces such as those used in street signs and pavement markers. The most obvious difference between Nelson and the claimed invention is that Nelson does not teach or suggest "cutting out the substrate into bits such that the individual microcomponents are separated from each other." (Claim 14) To the

contrary, Nelson is concerned with forming features on the mold as whole; separating the mold into bits in Nelson would destroy the mold for its intended purpose. Moreover, the methodology disclosed in Nelson only relates to the fabrication of the mold. The mold is then used to press a plastic sheet into a desired unitary shape. This is different from the claimed machining process used to produce optical quality microcomponents which are separated from each other and used individually in discrete optical devices.

Therefore, even if one of ordinary skill in the art were to look to Nelson to obviate the shortcomings of the admitted prior art, a point which Applicants traverse given the disparate arts and approaches disclosed in the admitted prior art and Nelson, the claimed invention would not result.

The other prior art also fails to remedy the shortcomings of the admitted prior art. Smith does not disclose the cutting of the substrate into bits in order to separate the optical components from each other. The cube corner article comprises a plurality of cube corner elements arranged in arrays on a substrate. The cube corner article is realized by forming an intersecting set of grooves in a substrate in order to make the relief of the different cube corner elements. The cutting step separates the cube corner elements form each other, but they remain supported by the same substrate; the substrate is not cut into bits.

Staunton, in FIG. 11, discloses the step of cutting into bits a skewed pile of polished sheets fixed together by cement. These sheets do not have a microrelief of optical quality obtained by mechanical machining in accordance with the claimed invention. Furthermore, there is simply no motivation to combine the teachings of Staunton with those the other prior art. In Smith, the mircocomponents (cube corner elements) are arranged in arrays and must be supported by the same substrate. They are realized together on the substrate by mechanically

machining in order to obtain their microrelief. In Staunton, there is no mechanical machining step in order to obtain microrelief.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.[1]

[1] M.P.E.P § 2143.

Conclusion

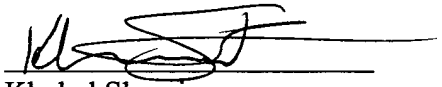
In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance. Such allowance is respectfully solicited.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

Please charge any additional required fee, including those necessary to obtain extensions of time to render timely the filing of the instant Reply, or credit any overpayment not otherwise paid or credited, to our deposit account No. 50-1698.

Respectfully submitted,
THELEN REID & PRIEST, L.L.P.

Dated: August 3, 2004



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